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ABSTRACT

In general, the guides for evaluating existing school buildings list the various elements of the building and its properties. The elements commonly listed include site, which embraces the adequacy of size, location, and natural environment; internal environment, which is commonly divided into space, visual qualities, thermal qualities, and sonic qualities; and instructional adequacy, which is listed in terms of equipment, space utilization, and design. This pamphlet contains an analysis and annotated bibliographies of ten publications on school building evaluation that are available in the ERIC system. A supplementary bibliography lists eight additional citations. (Author/MLF)

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EVALUATING THE EXISTING SCHOOL PLANT

By Philip Piele and Darrell Wright

Evaluations of school buildings may serve a variety of purposes. Some educators are interested in evaluating buildings to determine their adequacy for instructional purposes. They wonder if the existing building serves instructional methodology adequately. Can teachers use innovative methods in the building? Does the building design limit teaching creativity? They need answers to those questions that express concern about suitability of the building to the needs of instruction.

Some educators will evaluate the building to determine the adequacy of safety, maintenance, and durability. They wonder if old schools will live longer or should new schools be constructed. They wonder if remodeling or renovation is more appropriate than new construction. Are there dangerous situations that need to be corrected? They need assurance that the daily inhabitants are safe and provided with a healthy, wholesome environment.

Other educators will evaluate a building to determine if the facility meets standards of governing and regulatory agencies. The numbers of things and the size of things become important, so there may be a need to count and measure. Is the lighting adequate? Are the rooms too small? Are the rooms too big? Does the building meet state codes?

Some educators will evaluate an existing building to determine if the atmosphere contributes to wholesome feelings and healthy interaction among the users. They wonder if the building contributes to or detracts from morale. The elusive aesthetic qualities of color, shape, and design concepts need to be considered. What colors create calm moods? What designs allow freedom to move? The answers are often personal and differ for each evaluator.

In general, the guides for evaluating existing school buildings list the various elements of the building and its properties. The elements commonly

listed include *site*, which embraces the adequacy of size, location, and natural environment; *internal environment*, which is commonly divided into space, visual qualities, thermal qualities, and sonic qualities; and *instructional adequacy*, which is listed in terms of equipment, space utilization, and design. The priority, order, and relationship of the items, and the categories included within them, vary from guide to guide.

To a lesser degree, aesthetics, atmosphere, and climate are treated for evaluation. The subjectivity involved in rating the qualities increases the difficulty of deriving an objective score value.

The evaluation guides vary in their scoring methods. Some ask for point values based on the personal judgment of the evaluator. Some ask the evaluator to check items as present or absent or to check in scaled columns. Other instruments ask for narrative comment as well as an assignment of point values. In common, the guides provide a method for quantifying the judgment of the evaluator, and a way to report the results to others.

Can a set of guidelines or criteria for building evaluation be objective? One must recognize in any evaluation guide, or set of criteria, that statements carry value and require a predisposition toward teaching style, instructional method, and curriculum. For example, if one believes that open education is to be valued, then the evaluation of a traditionally designed building would not be high. If one believes that walls should be fixed and rooms clearly defined, then a building designed for open spaces and freedom in learning will not be highly valued.

The evaluator may respond to the individual item from his own educational philosophy, from his own notions about teaching, and from his own reactions to different environments. The rating scales and evaluative statements do not normally state the educational philosophy or value system from which they arise. The evaluator should exercise his professional judgment when accepting any instrument for local use and be ready to discover its orientation and biases.

Hawkins, Harold L. ***Appraisal Guide for School Facilities.*** Midland, Michigan: Pendell Publishing Company, 1973. 96 pages. ED 082 299.

This comprehensive appraisal guide provides a road map for school administrators when existing school buildings are evaluated. It directs the evaluator through aspects of site, structural-mechanical features, building environment, school safety, space utilization, and maintainability. Effective use of photographs, floor plans, diagrams, profile charts, and point columns make the journey practical.

The purpose of the trip is to assess the general condition of the building and to evaluate its suitability to the educational program. Field-testing has shown the 155 items in the appraisal guide to be important and usable by other than technical building experts.

Order copies from Pendell Publishing Company, P.O. Box 1666, Midland, Michigan 48640. $5.00.

Lawrence, Charles, Lawyer, Frank; and Caudill, William. ***Quality Profiles—A Report by the Caudill Rowlett Scott Team.*** Houston, Texas: Caudill, Rowlett and Scott, Architects, 1964. 19 pages. ED 035 166.

The evaluation of building design is presented here in readable, subjective terms by a team of architects. They state that every good building has intrinsic qualities that include concept, structure, physical environment, emotional environment, materials, refinement, space, and land. Each concept is expanded by a brief descriptive paragraph and related questions leading to conclusions about the degree of quality in each element.

School officials will not find in this article any objective measuring procedures for assessing school building design. They will, however, obtain an increased appreciation and understanding of the aesthetic aspects of general building design.

Order from EDRS. MF $0.76 HC $1.58. Specify ED number.

McGuffey, Carroll W. ***MEEB: Model for the Evaluation of Educational Buildings.*** Chicago: Department of Facilities Planning, Chicago Board of Education, 1974. 92 pages. ED 090 676.

MEEB is a comprehensive guide for the evaluation of existing school buildings, filling a need where models are scarce. Designed to measure the adequacy of the environmental factors that affect the educational process, the model has three major components: the qualitative subsystem, the quantitative subsystem, and the process subsystem. The qualitative component is emphasized.

Guidelines that form a rationale for the development of the model are included, as are sample data collection forms, inventories, and questionnaires.

This model has been operationalized and tested.

Order from EDRS. MF $0.76 HC $4.43. Specify ED number.

Philadelphia School District. ***Evaluative Criteria for Elementary School Buildings.*** Philadelphia: 1967. 54 pages. ED 033 548.

The Philadelphia School District has developed a set of criteria for use in evaluating elementary school buildings. The criteria, drawn from educational specifications compiled for new construction projects, can be applied to existing buildings. The general categories presented are site, building, administrative suite, classrooms, special purpose

rooms, and miscellaneous features. Each category has subdivisions to be rated according to a judgment of satisfactory, deficient, or totally lacking.

The criteria are comprehensive and sufficiently general to be usable by others as a checklist for evaluating buildings or in the development of educational specifications. In Philadelphia, the criteria were used to determine the degree to which buildings were suited for the growing instructional innovations.

Order from EDRS. MF $0.76 HC $3.32. Specify ED number.

Reida, G. W. *A Manual for Evaluating School Facilities.* Topeka. Kansas State Department of Public Instruction, 1962. 71 pages. ED 036 961.

Designed to be used by local school people, citizens' committees, or informed individuals, this manual guides the evaluator through a detailed inspection of a school's functions. The separate sections include site, building structure, administration spaces, classrooms, special rooms, general service areas, heating, ventilation, air, lighting, electrical equipment, fire protection, water supply, and sanitation.

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Rissetto, Henry J. "Revitalization of Existing Educational Facilities: An Overview." *IAR Research Bulletin,* 15, 2 (January 1975), pp. 1-2, 6-7. EJ 110 988.

The decision to revitalize an existing school facility is complex, requiring thorough analysis and careful planning. To assist in making such decisions, five major items are suggested as interrelated factors to be considered: educational obsolescence, location obsolescence, site obsolescence, building structure and services obsolescence, and environmental obsolescence.

After discussing each factor in detail, Rissetto lists the following statements to be included in guidelines for deciding whether to revitalize existing school facilities:

1. Broad-based determinations of educational intentions to which the building might be put
2. Documentation of long-range need or role of the facility in the district's master plan
3. Structural analyses for inherent soundness or shortcomings of the building for intended loadings
4. Fire, health, and safety analyses based on pertinent codes and regulations
5. Environmental criteria to be used as a basis of redesign and cost estimation
6. Cost-breakdown profile to be used in comparison with equivalent replacement (new) construction

Sessions, E. B. *Rehabilitation of Existing School Buildings or Construction of New Buildings? Criteria for Boards of Education, Administrators and School Business Officials.* Chicago: Research Corporation, Association of School Business Officials, 1964. 19 pages. ED 036 970.

The answer to the title question rests in the judgment of school board members and school administrators. Formulating the answers requires an evaluation of building adequacy. This brief document poses questions that help to generate the answers needed for decisions related to building adequacy. Sessions speaks to school board members about educational obsolescence and the formulation of policy. Then he guides school administrators in the main problem of evaluating buildings.

Four general building features are investigated: educational, site, location, and building structure-service systems. A rating system is not presented. Rather, questions and statements are intended to assist the school officials in formulating policy to generate decisions. The process of policy-formation and decision-making related to building new or remodeling old structures amounts to a process of evaluation.

Order from EDRS. MF $0.76 HC $1.58. Specify ED number.

Sugden, John H., Jr. "How Effective Are Open Plan Elementary Schools?" *American School and University,* 45, 12 (August 1973), pp. 18, 20-21. EJ 081 204.

This article reports findings from a survey of 16 California school districts that use an open plan teaching concept in buildings designed for open plan teaching. Building use and teaching advantages and disadvantages are presented. The teachers, principals, and architects responding in this survey were generally favorable to open plan teaching and to the buildings.

The author concludes with five recommendations based on the survey. Readers may find ideas in this article for use in evaluating school buildings in relation to teaching concepts.

Wakefield, Howard E. *Evaluating Educational Facilities. An Annotated Reference List.* Madison: ERIC Clearinghouse on Educational Facilities, University of Wisconsin, 1968. 33 pages. ED 024 256.

This annotated list of documents received and processed by the ERIC Clearinghouse on Educational Facilities contains 20 references dated prior to 1968 relating to various

aspects of building evaluation at elementary, secondary, and higher education levels. The focus is on specific aspects of buildings rather than on evaluation of total building adequacy.

Order from EDRS. MF $0.76 HC $1.95. Specify ED number.

Stewart, G. Kent, editor. *Guide for Planning Educational Facilities. An Authoritative and Comprehensive Guide to the Planning of Educational Facilities from the Conception of Need through Utilization of the Facility.* 4th ed. Columbus, Ohio: Council of Educational Facility Planners, International, 1969. 204 pages. ED 043 958.

The evaluation of existing facilities is treated briefly within this comprehensive school building publication.

Two questions are posed: To what extent do existing facilities meet program needs? and What modifications, improvements, or additions will be required for each facility that continues in use? The answers are based on the collection of data with respect to quality of the physical structure, the suitability for health and safety, and the ability to achieve the desired program. Structural elements such as foundation, stairs, walls, ceiling, and roof can be best judged by architects or engineers. The program adequacy elements to be considered are flexibility of space, adaptability to new instructional techniques, and adaptability to technology.

Utilization, a complex aspect of evaluation, considers rooms and student station numbers in relation to the desired and optimum size, usually determined by program organization and local policy.

Evaluation instruments are cited and recommended as valuable tools for conducting an existing facility evaluation.

Order copies from The Council of Educational Facility Planners, International, 29 West Woodruff Avenue, Columbus, Ohio 43210. $10.00.

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Wakefield, Howard E. *Standards for Educational Facilities. An Annotated Reference List.* Madison: ERIC Clearinghouse on Educational Facilities, University of Wisconsin, 1968. 28 pages. ED 025 141 MF $0.76 HC $1.95.

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